

### ABSTRACT

A method and apparatus of reconstructing data from higher moment data. The method and apparatus include performing a finite Radon transform, generating an average function to allow inversion of transform in one step and correlating the transform output at  
5 each point. A resultant set of duplications is calculated using the correlation process to generate a new average function. Partial backprojections of the Radon transform are summed at each point, and the new average function for each point is subtracted from the sum of the partial backprojections at that point.